EXHIBIT D

BLAST

Basic Local Alignment Search Tool

Edit and Resubmit Save Search Strategies Formatting options Download

Blast 2 sequences

CQ918598:Sequence 15 from Patent WO2004096842

Results for: emb|CQ918598.1 Sequence 15 from Patent WO2004096842.(29751bp)
Your BLAST job specified more than one input sequence. This box lets you choose which input sequence to show BLAST results for.

Query ID
gi|56208614|emb|CQ918598.1|
gi|56208614|emb|CQ918598.1|
Description
Sequence 15 from Patent WO2004096842.
Molecule type
dna
Query Length
29751

Subject ID
57133
Description
Contig1
Molecule type
nucleic acid
Subject Length
29736
Program
BLASTN 2.2.23+ Citation

Reference
Zheng Zhang, Scott Schwartz, Lukas Wagner, and Webb Miller (2000), "A greedy algorithm for aligning DNA sequences", J Comput Biol 2000; 7(1-2):203-14.
Other reports: Search Summary [Taxonomy reports]

Search Parameters

Search parameter name	Search parameter value
Program	blastn
Word size	28
Expect value	10
Hitlist size	100
Match/Mismatch scores	1,-2
Gapcosts	0,0
Low Complexity Filter	Yes
Filter string	L;m;
Genetic Code	1

Karlin-Altschul statistics

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Params	Ungapped	Gapped
Lambda	1.33271	1.28
K	0.620991	0.46
H	1.12409	0.85

Results Statistics

Results Statistics parameter name	Results Statistics parameter value
Effective search space	883426950

Graphic Summary

Distribution of 1 Blast Hits on the Query Sequence

[?]

An overview of the database sequences aligned to the query sequence is shown. The score of each alignment is indicated by one of five different colors, which divides the range of scores into five groups. Multiple alignments on the same database sequence are connected by a striped line. Mousing over a hit sequence causes the definition and score to be shown in the window at the top, clicking on a hit sequence takes the user to the associated alignments. New: This graphic is an overview of database sequences aligned to the query sequence. Alignments are color-coded by score, within one of five score ranges. Multiple alignments on the same database sequence are connected by a dashed line. Mousing over an alignment shows the alignment definition and score in the box at the top. Clicking an alignment displays the alignment detail.

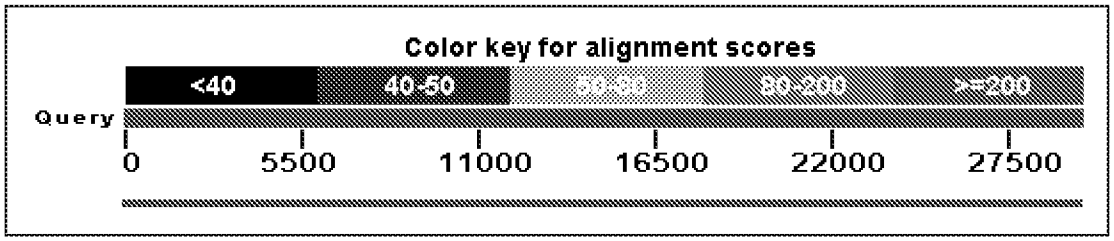

EXHIBIT D

Dot Matrix View

Plot of gi|56208614|emb|CQ918598.1| vs 57133 [?]

This dot matrix view shows regions of similarity based upon the BLAST results. The query sequence is represented on the X-axis and the numbers represent the bases/residues of the query. The subject is represented on the Y-axis and again the numbers represent the bases/residues of the subject. Alignments are shown in the plot as lines. Plus strand and protein matches are slanted from the bottom left to the upper right corner, minus strand matches are slanted from the upper left to the lower right. The number of lines shown in the plot is the same as the number of alignments found by BLAST.

Descriptions

Legend for links to other resources: UniGene GEO Gene Structure Map Viewer

Sequences producing significant alignments:

Accession	Description	Max score	Total score	Query coverage	E value	Max ident	Links
57133	Contig1	5.489e+04	5.489e+04	99%	0.0	99%	

Alignments

Select All Get selected sequences Distance tree of results Multiple alignment

```
>lcl|57133 Contig1
Length=29736

 Score = 5.489e+04 bits (29724),  Expect = 0.0
 Identities = 29732/29736 (99%), Gaps = 0/29736 (0%)
 Strand=Plus/Plus

Query  16     CTACCCAGGAAAAGCCAACCAACCTCGATCTCTTGTAGATCTGTTCTCTAAACGAACTTT  75
Sbjct  1      ............................................................  60

Query  76     AAAATCTGTGTAGCTGTCGCTCGGCTGCATGCCTAGTGCACCTACGCAGTATAAACAATA  135
Sbjct  61     ............................................................  120

Query  136    ATAAATTTTACTGTCGTTGACAAGAAACGAGTAACTCGTCCCTCTTCTGCAGACTGCTTA  195
Sbjct  121    ............................................................  180

Query  196    CGGTTTCGTCCGTGTTGCAGTCGATCATCAGCATACCTAGGTTTCGTCCGGGTGTGACCG  255
Sbjct  181    ............................................................  240

Query  256    AAAGGTAAGATGGAGAGCCTTGTTCTTGGTGTCAACGAGAAAACACACGTCCAACTCAGT  315
Sbjct  241    ............................................................  300

Query  316    TTGCCTGTCCTTCAGGTTAGAGACGTGCTAGTGCGTGGCTTCGGGGACTCTGTGGAAGAG  375
Sbjct  301    ............................................................  360
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EXHIBIT D

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Query  376    GCCCTATCGGAGGCACGTGAACACCTCAAAAATGGCACTTGTGGTCTAGTAGAGCTGGAA  435
Sbjct  361    ............................................................  420

Query  436    AAAGGCGTACTGCCCCAGCTTGAACAGCCCTATGTGTTCATTAAACGTTCTGATGCCTTA  495
Sbjct  421    ............................................................  480

Query  496    AGCACCAATCACGGCCACAAGGTCGTTGAGCTGGTTGCAGAAATGGACGGCATTCAGTAC  555
Sbjct  481    ............................................................  540

Query  556    GGTCGTAGCGGTATAACACTGGGAGTACTCGTGCCACATGTGGGCGAAACCCCAATTGCA  615
Sbjct  541    ............................................................  600

Query  616    TACCGCAATGTTCTTCTTCGTAAGAACGGTAATAAGGGAGCCGGTGGTCATAGCTATGGC  675
Sbjct  601    ............................................................  660

Query  676    ATCGATCTAAAGTCTTATGACTTAGGTGACGAGCTTGGCACTGATCCCATTGAAGATTAT  735
Sbjct  661    ............................................................  720

Query  736    GAACAAAACTGGAACACTAAGCATGGCAGTGGTGCACTCCGTGAACTCACTCGTGAGCTC  795
Sbjct  721    ............................................................  780

Query  796    AATGGAGGTGCAGTCACTCGCTATGTCGACAACAATTTCTGTGGCCCAGATGGGTACCCT  855
Sbjct  781    ............................................................  840

Query  856    CTTGATTGCATCAAAGATTTTCTCGCACGCGCGGGCAAGTCAATGTGCACTCTTTCCGAA  915
Sbjct  841    ............................................................  900

Query  916    CAACTTGATTACATCGAGTCGAAGAGAGGTGTCTACTGCTGCCGTGACCATGAGCATGAA  975
Sbjct  901    ............................................................  960

Query  976    ATTGCCTGGTTCACTGAGCGCTCTGATAAGAGCTACGAGCACCAGACACCCTTCGAAATT  1035
Sbjct  961    ............................................................  1020

Query  1036   AAGAGTGCCAAGAAATTTGACACTTTCAAAGGGGAATGCCCAAAGTTTGTGTTTCCTCTT  1095
Sbjct  1021   ............................................................  1080

Query  1096   AACTCAAAAGTCAAAGTCATTCAACCACGTGTTGAAAAGAAAAAGACTGAGGGTTTCATG  1155
Sbjct  1081   ............................................................  1140

Query  1156   GGGCGTATACGCTCTGTGTACCCTGTTGCATCTCCACAGGAGTGTAACAATATGCACTTG  1215
Sbjct  1141   ............................................................  1200

Query  1216   TCTACCTTGATGAAATGTAATCATTGCGATGAAGTTTCATGGCAGACGTGCGACTTTCTG  1275
Sbjct  1201   ............................................................  1260

Query  1276   AAAGCCACTTGTGAACATTGTGGCACTGAAAATTTAGTTATTGAAGGACCTACTACATGT  1335
Sbjct  1261   ............................................................  1320

Query  1336   GGGTACCTACCTACTAATGCTGTAGTGAAAATGCCATGTCCTGCCTGTCAAGACCCAGAG  1395
Sbjct  1321   ............................................................  1380

Query  1396   ATTGGACCTGAGCATAGTGTTGCAGATTATCACAACCACTCAAACATTGAAACTCGACTC  1455
Sbjct  1381   ............................................................  1440

Query  1456   CGCAAGGGAGGTAGGACTAGATGTTTTGGAGGCTGTGTGTTTGCCTATGTTGGCTGCTAT  1515
Sbjct  1441   ............................................................  1500

Query  1516   AATAAGCGTGCCTACTGGGTTCCTCGTGCTAGTGCTGATATTGGCTCAGGCCATACTGGC  1575
Sbjct  1501   ............................................................  1560

Query  1576   ATTACTGGTGACAATGTGGAGACCTTGAATGAGGATCTCCTTGAGATACTGAGTCGTGAA  1635
Sbjct  1561   ............................................................  1620

Query  1636   CGTGTTAACATTAACATTGTTGGCGATTTTCATTTGAATGAAGAGGTTGCCATCATTTTG  1695
Sbjct  1621   ............................................................  1680

Query  1696   GCATCTTTCTCTGCTTCTACAAGTGCCTTTATTGACACTATAAAGAGTCTTGATTACAAG  1755
Sbjct  1681   ............................................................  1740

Query  1756   TCTTTCAAAACCATTGTTGAGTCCTGCGGTAACTATAAAGTTACCAAGGGAAAGCCCGTA  1815
Sbjct  1741   ............................................................  1800

Query  1816   AAAGGTGCTTGGAACATTGGACAACAGAGATCAGTTTTAACACCACTGTGTGGTTTTCCC  1875
Sbjct  1801   ............................................................  1860

Query  1876   TCACAGGCTGCTGGTGTTATCAGATCAATTTTTGCGCGCACACTTGATGCAGCAAACCAC  1935
Sbjct  1861   ............................................................  1920

Query  1936   TCAATTCCTGATTTGCAAAGAGCAGCTGTCACCATACTTGATGGTATTTCTGAACAGTCA  1995
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EXHIBIT D

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Sbjct  1921  ..........................................................  1980

Query  1996  TTACGTCTTGTCGACGCCATGGTTTATACTTCAGACCTGCTCACCAACAGTGTCATTATT  2055
Sbjct  1981  ..........................................................  2040

Query  2056  ATGGCATATGTAACTGGTGGTCTTGTACAACAGACTTCTCAGTGGTTGTCTAATCTTTTG  2115
Sbjct  2041  ..........................................................  2100

Query  2116  GGCACTACTGTTGAAAAACTCAGGCCTATCTTTGAATGGATTGAGGCGAAACTTAGTGCA  2175
Sbjct  2101  ..........................................................  2160

Query  2176  GGAGTTGAATTTCTCAAGGATGCTTGGGAGATTCTCAAATTTCTCATTACAGGTGTTTTT  2235
Sbjct  2161  ..........................................................  2220

Query  2236  GACATCGTCAAGGGTCAAATACAGGTTGCTTCAGATAACATCAAGGATTGTGTAAAATGC  2295
Sbjct  2221  ..........................................................  2280

Query  2296  TTCATTGATGTTGTTAACAAGGCACTCGAAATGTGCATTGATCAAGTCACTATCGCTGGC  2355
Sbjct  2281  ..........................................................  2340

Query  2356  GCAAAGTTGCGATCACTCAACTTAGGTGAAGTCTTCATCGCTCAAAGCAAGGGACTTTAC  2415
Sbjct  2341  ..........................................................  2400

Query  2416  CGTCAGTGTATACGTGGCAAGGAGCAGCTGCAACTACTCATGCCTCTTAAGGCACCAAAA  2475
Sbjct  2401  ..........................................................  2460

Query  2476  GAAGTAACCTTTCTTGAAGGTGATTCACATGACACAGTACTTACCTCTGAGGAGGTTGTT  2535
Sbjct  2461  ..........................................................  2520

Query  2536  CTCAAGAACGGTGAACTCGAAGCACTCGAGACGCCCGTTGATAGCTTCACAAATGGAGCT  2595
Sbjct  2521  ..........................................................  2580

Query  2596  ATCGTTGGCACACCAGTCTGTGTAAATGGCCTCATGCTCTTAGAGATTAAGGACAAAGAA  2655
Sbjct  2581  .....C....................................................  2640

Query  2656  CAATACTGCGCATTGTCTCCTGGTTTACTGGCTACAAACAATGTCTTTCGCTTAAAAGGG  2715
Sbjct  2641  ..........................................................  2700

Query  2716  GGTGCACCAATTAAAGGTGTAACCTTTGGAGAAGATACTGTTTGGGAAGTTCAAGGTTAC  2775
Sbjct  2701  ..........................................................  2760

Query  2776  AAGAATGTGAGAATCACATTTGAGCTTGATGAACGTGTTGACAAAGTGCTTAATGAAAAG  2835
Sbjct  2761  ..........................................................  2820

Query  2836  TGCTCTGTCTACACTGTTGAATCCGGTACCGAAGTTACTGAGTTTGCATGTGTTGTAGCA  2895
Sbjct  2821  ..........................................................  2880

Query  2896  GAGGCTGTTGTGAAGACTTTACAACCAGTTTCTGATCTCCTTACCAACATGGGTATTGAT  2955
Sbjct  2881  ..........................................................  2940

Query  2956  CTTGATGAGTGGAGTGTAGCTACATTCTACTTATTTGATGATGCTGGTGAAGAAAACTTT  3015
Sbjct  2941  ..........................................................  3000

Query  3016  TCATCACGTATGTATTGTTCCTTTTACCCTCCAGATGAGGAAGAAGAGGACGATGCAGAG  3075
Sbjct  3001  ..........................................................  3060

Query  3076  TGTGAGGAAGAAGAAATTGATGAAACCTGTGAACATGAGTACGGTACAGAGGATGATTAT  3135
Sbjct  3061  ..........................................................  3120

Query  3136  CAAGGTCTCCCTCTGGAATTTGGTGCCTCAGCTGAAACAGTTCGAGTTGAGGAAGAAGAA  3195
Sbjct  3121  ..........................................................  3180

Query  3196  GAGGAAGACTGGCTGGATGATACTACTGAGCAATCAGAGATTGAGCCAGAACCAGAACCT  3255
Sbjct  3181  ..........................................................  3240

Query  3256  ACACCTGAAGAACCAGTTAATCAGTTTACTGGTTATTTAAAACTTACTGACAATGTTGCC  3315
Sbjct  3241  ..........................................................  3300

Query  3316  ATTAAATGTGTTGACATCGTTAAGGAGGCACAAAGTGCTAATCCTATGGTGATTGTAAAT  3375
Sbjct  3301  ..........................................................  3360

Query  3376  GCTGCTAACATACACCTGAAACATGGTGGTGGTGTAGCAGGTGCACTCAACAAGGCAACC  3435
Sbjct  3361  ..........................................................  3420

Query  3436  AATGGTGCCATGCAAAAGGAGAGTGATGATTACATTAAGCTAAATGGCCCTCTTACAGTA  3495
Sbjct  3421  ..........................................................  3480

Query  3496  GGAGGGTCTTGTTTGCTTTCTGGACATAATCTTGCTAAGAAGTGTCTGCATGTTGTTGGA  3555
Sbjct  3481  ..........................................................  3540
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EXHIBIT D

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Query  3556   CCTAACCTAAATGCAGGTGAGGACATCCAGCTTCTTAAGGCAGCATATGAAAATTTCAAT  3615
Sbjct  3541   ............................................................  3600

Query  3616   TCACAGGACATCTTACTTGCACCATTGTTGTCAGCAGGCATATTTGGTGCTAAACCACTT  3675
Sbjct  3601   ............................................................  3660

Query  3676   CAGTCTTTACAAGTGTGCGTGCAGACGGTTCGTACACAGGTTTATATTGCAGTCAATGAC  3735
Sbjct  3661   ............................................................  3720

Query  3736   AAAGCTCTTTATGAGCAGGTTGTCATGGATTATCTTGATAACCTGAAGCCTAGAGTGGAA  3795
Sbjct  3721   ............................................................  3780

Query  3796   GCACCTAAACAAGAGGAGCCACCAAACACAGAAGATTCCAAAACTGAGGAGAAATCTGTC  3855
Sbjct  3781   ............................................................  3840

Query  3856   GTACAGAAGCCTGTCGATGTGAAGCCAAAAATTAAGGCCTGCATTGATGAGGTTACCACA  3915
Sbjct  3841   ............................................................  3900

Query  3916   ACACTGGAAGAAACTAAGTTTCTTACCAATAAGTTACTCTTGTTTGCTGATATCAATGGT  3975
Sbjct  3901   ............................................................  3960

Query  3976   AAGCTTTACCATGATTCTCAGAACATGCTTAGAGGTGAAGATATGTCTTTCCTTGAGAAG  4035
Sbjct  3961   ............................................................  4020

Query  4036   GATGCACCTTACATGGTAGGTGATGTTATCACTAGTGGTGATATCACTTGTGTTGTAATA  4095
Sbjct  4021   ............................................................  4080

Query  4096   CCCTCCAAAAAGGCTGGTGGCACTACTGAGATGCTCTCAAGAGCTTTGAAGAAAGTGCCA  4155
Sbjct  4081   ............................................................  4140

Query  4156   GTTGATGAGTATATAACCACGTACCCTGGACAAGGATGTGCTGGTTATACACTTGAGGAA  4215
Sbjct  4141   ............................................................  4200

Query  4216   GCTAAGACTGCTCTTAAGAAATGCAAATCTGCATTTTATGTACTACCTTCAGAAGCACCT  4275
Sbjct  4201   ............................................................  4260

Query  4276   AATGCTAAGGAAGAGATTCTAGGAACTGTATCCTGGAATTTGAGAGAAATGCTTGCTCAT  4335
Sbjct  4261   ............................................................  4320

Query  4336   GCTGAAGAGACAAGAAAATTAATGCCTATATGCATGGATGTTAGAGCCATAATGGCAACC  4395
Sbjct  4321   ............................................................  4380

Query  4396   ATCCAACGTAAGTATAAAGGAATTAAAATTCAAGAGGGCATCGTTGACTATGGTGTCCGA  4455
Sbjct  4381   ............................................................  4440

Query  4456   TTCTTCTTTTATACTAGTAAAGAGCCTGTAGCTTCTATTATTACGAAGCTGAACTCTCTA  4515
Sbjct  4441   ............................................................  4500

Query  4516   AATGAGCCGCTTGTCACAATGCCAATTGGTTATGTGACACATGGTTTTAATCTTGAAGAG  4575
Sbjct  4501   ............................................................  4560

Query  4576   GCTGCGCGCTGTATGCGTTCTCTTAAAGCTCCTGCCGTAGTGTCAGTATCATCACCAGAT  4635
Sbjct  4561   ............................................................  4620

Query  4636   GCTGTTACTACATATAATGGATACCTCACTTCGTCATCAAAGACATCTGAGGAGCACTTT  4695
Sbjct  4621   ............................................................  4680

Query  4696   GTAGAAACAGTTTCTTTGGCTGGCTCTTACAGAGATTGGTCCTATTCAGGACAGCGTACA  4755
Sbjct  4681   ............................................................  4740

Query  4756   GAGTTAGGTGTTGAATTTCTTAAGCGTGGTGACAAAATTGTGTACCACACTCTGGAGAGC  4815
Sbjct  4741   ............................................................  4800

Query  4816   CCCGTCGAGTTTCATCTTGACGGTGAGGTTCTTTCACTTGACAAACTAAAGAGTCTCTTA  4875
Sbjct  4801   ............................................................  4860

Query  4876   TCCCTGCGGGAGGTTAAGACTATAAAAGTGTTCACAACTGTGGACAACACTAATCTCCAC  4935
Sbjct  4861   ............................................................  4920

Query  4936   ACACAGCTTGTGGATATGTCTATGACATATGGACAGCAGTTTGGTCCAACATACTTGGAT  4995
Sbjct  4921   ............................................................  4980

Query  4996   GGTGCTGATGTTACAAAAATTAAACCTCATGTAAATCATGAGGGTAAGACTTTCTTTGTA  5055
Sbjct  4981   ............................................................  5040

Query  5056   CTACCTAGTGATGACACACTACGTAGTGAAGCTTTCGAGTACTACCATACTCTTGATGAG  5115
Sbjct  5041   ............................................................  5100
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EXHIBIT D

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Query  5116   AGTTTTCTTGGTAGGTACATGTCTGCTTTAAACCACACAAAGAAATGGAAATTTCCTCAA  5175
Sbjct  5101   ............................................................  5160

Query  5176   GTTGGTGGTTTAACTTCAATTAAATGGGCTGATAACAATTGTTATTTGTCTAGTGTTTTA  5235
Sbjct  5161   ............................................................  5220

Query  5236   TTAGCACTTCAACAGCTTGAAGTCAAATTCAATGCACCAGCACTTCAAGAGGCTTATTAT  5295
Sbjct  5221   ............................................................  5280

Query  5296   AGAGCCCGTGCTGGTGATGCTGCTAACTTTTGTGCACTCATACTCGCTTACAGTAATAAA  5355
Sbjct  5281   ............................................................  5340

Query  5356   ACTGTTGGCGAGCTTGGTGATGTCAGAGAAACTATGACCCATCTTCTACAGCATGCTAAT  5415
Sbjct  5341   ............................................................  5400

Query  5416   TTGGAATCTGCAAAGCGAGTTCTTAATGTGGTGTGTAAACATTGTGGTCAGAAAACTACT  5475
Sbjct  5401   ............................................................  5460

Query  5476   ACCTTAACGGGTGTAGAAGCTGTGATGTATATGGGTACTCTATCTTATGATAATCTTAAG  5535
Sbjct  5461   ............................................................  5520

Query  5536   ACAGGTGTTTCCATTCCATGTGTGTGTGGTCGTGATGCTACACAATATCTAGTACAACAA  5595
Sbjct  5521   ............................................................  5580

Query  5596   GAGTCTTCTTTTGTTATGATGTCTGCACCACCTGCTGAGTATAAATTACAGCAAGGTACA  5655
Sbjct  5581   ............................................................  5640

Query  5656   TTCTTATGTGCGAATGAGTACACTGGTAACTATCAGTGTGGTCATTACACTCATATAACT  5715
Sbjct  5641   ............................................................  5700

Query  5716   GCTAAGGAGACCCTCTATCGTATTGACGGAGCTCACCTTACAAAGATGTCAGAGTACAAA  5775
Sbjct  5701   ............................................................  5760

Query  5776   GGACCAGTGACTGATGTTTTCTACAAGGAAACATCTTACACTACAACCATCAAGCCTGTG  5835
Sbjct  5761   ............................................................  5820

Query  5836   TCGTATAAACTCGATGGAGTTACTTACACAGAGATTGAACCAAAATTGGATGGGTATTAT  5895
Sbjct  5821   ............................................................  5880

Query  5896   AAAAAGGATAATGCTTACTATACAGAGCAGCCTATAGACCTTGTACCAACTCAACCATTA  5955
Sbjct  5881   ............................................................  5940

Query  5956   CCAAATGCGAGTTTTGATAATTTCAAACTCACATGTTCTAACACAAAATTTGCTGATGAT  6015
Sbjct  5941   ............................................................  6000

Query  6016   TTAAATCAAATGACAGGCTTCACAAAGCCAGCTTCACGAGAGCTATCTGTCACATTCTTC  6075
Sbjct  6001   ............................................................  6060

Query  6076   CCAGACTTGAATGGCGATGTAGTGGCTATTGACTATAGACACTATTCAGCGAGTTTCAAG  6135
Sbjct  6061   ............................................................  6120

Query  6136   AAAGGTGCTAAATTACTGCATAAGCCAATTGTTTGGCACATTAACCAGGCTACAACCAAG  6195
Sbjct  6121   ............................................................  6180

Query  6196   ACAACGTTCAAACCAAACACTTGGTGTTTACGTTGTCTTTGGAGTACAAAGCCAGTAGAT  6255
Sbjct  6181   ............................................................  6240

Query  6256   ACTTCAAATTCATTTGAAGTTCTGGCAGTAGAAGACACACAAGGAATGGACAATCTTGCT  6315
Sbjct  6241   ............................................................  6300

Query  6316   TGTGAAAGTCAACAACCCACCTCTGAAGAAGTAGTGGAAAATCCTACCATACAGAAGGAA  6375
Sbjct  6301   ............................................................  6360

Query  6376   GTCATAGAGTGTGACGTGAAAACTACCGAAGTTGTAGGCAATGTCATACTTAAACCATCA  6435
Sbjct  6361   ............................................................  6420

Query  6436   GATGAAGGTGTTAAAGTAACACAAGAGTTAGGTCATGAGGATCTTATGGCTGCTTATGTG  6495
Sbjct  6421   ............................................................  6480

Query  6496   GAAAACACAAGCATTACCATTAAGAAACCTAATGAGCTTTCACTAGCCTTAGGTTTAAAA  6555
Sbjct  6481   ............................................................  6540

Query  6556   ACAATTGCCACTCATGGTATTGCTGCAATTAATAGTGTTCCTTGGAGTAAAATTTTGGCT  6615
Sbjct  6541   ............................................................  6600

Query  6616   TATGTCAAACCATTCTTAGGACAAGCAGCAATTACAACATCAAATTGCGCTAAGAGATTA  6675
Sbjct  6601   ............................................................  6660

Query  6676   GCACAACGTGTGTTTAACAATTATATGCCTTATGTGTTTACATTATTGTTCCAATTGTGT  6735
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EXHIBIT D

```
Sbjct  6661  ..........................................................  6720

Query  6736  ACTTTTACTAAAAGTACCAATTCTAGAATTAGAGCTTCACTACCTACAACTATTGCTAAA  6795
Sbjct  6721  ..........................................................  6780

Query  6796  AATAGTGTTAAGAGTGTTGCTAAATTATGTTTGGATGCCGGCATTAATTATGTGAAGTCA  6855
Sbjct  6781  ..........................................................  6840

Query  6856  CCCAAATTTTCTAAATTGTTCACAATCGCTATGTGGCTATTGTTGTTAAGTATTTGCTTA  6915
Sbjct  6841  ..........................................................  6900

Query  6916  GGTTCTCTAATCTGTGTAACTGCTGCTTTTGGTGTACTCTTATCTAATTTTGGTGCTCCT  6975
Sbjct  6901  ..........................................................  6960

Query  6976  TCTTATTGTAATGGCGTTAGAGAATTGTATCTTAATTCGTCTAACGTTACTACTATGGAT  7035
Sbjct  6961  ..........................................................  7020

Query  7036  TTCTGTGAAGGTTCTTTTCCTTGCAGCATTTGTTTAAGTGGATTAGACTCCCTTGATTCT  7095
Sbjct  7021  ..........................................................  7080

Query  7096  TATCCAGCTCTTGAAACCATTCAGGTGACGATTTCATCGTACAAGCTAGACTTGACAATT  7155
Sbjct  7081  ..........................................................  7140

Query  7156  TTAGGTCTGGCCGCTGAGTGGGTTTTGGCATATATGTTGTTCACAAAATTCTTTTATTTA  7215
Sbjct  7141  ..........................................................  7200

Query  7216  TTAGGTCTTTCAGCTATAATGCAGGTGTTCTTTGGCTATTTTGCTAGTCATTTCATCAGC  7275
Sbjct  7201  ..........................................................  7260

Query  7276  AATTCTTGGCTCATGTGGTTTATCATTAGTATTGTACAAATGGCACCCGTTTCTGCAATG  7335
Sbjct  7261  ..........................................................  7320

Query  7336  GTTAGGATGTACATCTTCTTTGCTTCTTTCTACTACATATGGAAGAGCTATGTTCATATC  7395
Sbjct  7321  ..........................................................  7380

Query  7396  ATGGATGGTTGCACCTCTTCGACTTGCATGATGTGCTATAAGCGCAATCGTGCCACACGC  7455
Sbjct  7381  ..........................................................  7440

Query  7456  GTTGAGTGTACAACTATTGTTAATGGCATGAAGAGATCTTTCTATGTCTATGCAAATGGA  7515
Sbjct  7441  ..........................................................  7500

Query  7516  GGCCGTGGCTTCTGCAAGACTCACAATTGGAATTGTCTCAATTGTGACACATTTTGCACT  7575
Sbjct  7501  ..........................................................  7560

Query  7576  GGTAGTACATTCATTAGTGATGAAGTTGCTCGTGATTTGTCACTCCAGTTTAAAAGACCA  7635
Sbjct  7561  ..........................................................  7620

Query  7636  ATCAACCCTACTGACCAGTCATCGTATATTGTTGATAGTGTTGCTGTGAAAAATGGCGCG  7695
Sbjct  7621  ..........................................................  7680

Query  7696  CTTCACCTCTACTTTGACAAGGCTGGTCAAAAGACCTATGAGAGACATCCGCTCTCCCAT  7755
Sbjct  7681  ..........................................................  7740

Query  7756  TTTGTCAATTTAGACAATTTGAGAGCTAACAACACTAAAGGTTCACTGCCTATTAATGTC  7815
Sbjct  7741  ..........................................................  7800

Query  7816  ATAGTTTTTGATGGCAAGTCCAAATGCGACGAGTCTGCTTCTAAGTCTGCTTCTGTGTAC  7875
Sbjct  7801  ..........................................................  7860

Query  7876  TACAGTCAGCTGATGTGCCAACCTATTCTGTTGCTTGACCAAGCTCTTGTATCAGACGTT  7935
Sbjct  7861  ..........................................................  7920

Query  7936  GGAGATAGTACTGAAGTTTCCGTTAAGATGTTTGATGCTTATGTCGACACCTTTTCAGCA  7995
Sbjct  7921  ..........................................................  7980

Query  7996  ACTTTTAGTGTTCCTATGGAAAAACTTAAGGCACTTGTTGCTACAGCTCACAGCGAGTTA  8055
Sbjct  7981  ..........................................................  8040

Query  8056  GCAAAGGGTGTAGCTTTAGATGGTGTCCTTTCTACATTCGTGTCAGCTGCCCGACAAGGT  8115
Sbjct  8041  ..........................................................  8100

Query  8116  GTTGTTGATACCGATGTTGACACAAAGGATGTTATTGAATGTCTCAAACTTTCACATCAC  8175
Sbjct  8101  ..........................................................  8160

Query  8176  TCTGACTTAGAAGTGACAGGTGACAGTTGTAACAATTTCATGCTCACCTATAATAAGGTT  8235
Sbjct  8161  ..........................................................  8220

Query  8236  GAAAACATGACGCCCAGAGATCTTGGCGCATGTATTGACTGTAATGCAAGGCATATCAAT  8295
Sbjct  8221  ..........................................................  8280
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EXHIBIT D

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Query  8296   GCCCAAGTAGCAAAAAGTCACAATGTTTCACTCATCTGGAATGTAAAAGACTACATGTCT  8355
Sbjct  8281   ............................................................  8340

Query  8356   TTATCTGAACAGCTGCGTAAACAAATTCGTAGTGCTGCCAAGAAGAACAACATACCTTTT  8415
Sbjct  8341   ............................................................  8400

Query  8416   AGACTAACTTGTGCTACAACTAGACAGGTTGTCAATGTCATAACTACTAAAATCTCACTC  8475
Sbjct  8401   ............................................................  8460

Query  8476   AAGGGTGGTAAGATTGTTAGTACTTGTTTTAAACTTATGCTTAAGGCCACATTATTGTGC  8535
Sbjct  8461   ............................................................  8520

Query  8536   GTTCTTGCTGCATTGGTTTGTTATATCGTTATGCCAGTACATACATTGTCAATCCATGAT  8595
Sbjct  8521   ............................................................  8580

Query  8596   GGTTACACAAATGAAATCATTGGTTACAAAGCCATTCAGGATGGTGTCACTCGTGACATC  8655
Sbjct  8581   ............................................................  8640

Query  8656   ATTTCTACTGATGATTGTTTTGCAAATAAACATGCTGGTTTTGACGCATGGTTTAGCCAG  8715
Sbjct  8641   ............................................................  8700

Query  8716   CGTGGTGGTTCATACAAAAATGACAAAAGCTGCCCTGTAGTAGCTGCTATCATTACAAGA  8775
Sbjct  8701   ............................................................  8760

Query  8776   GAGATTGGTTTCATAGTGCCTGGCTTACCGGGTACTGTGCTGAGAGCAATCAATGGTGAC  8835
Sbjct  8761   ............................................................  8820

Query  8836   TTCTTGCATTTTCTACCTCGTGTTTTTAGTGCTGTTGGCAACATTTGCTACACACCTTCC  8895
Sbjct  8821   ............................................................  8880

Query  8896   AAACTCATTGAGTATAGTGATTTTGCTACCTCTGCTTGCGTTCTTGCTGCTGAGTGTACA  8955
Sbjct  8881   ............................................................  8940

Query  8956   ATTTTTAAGGATGCTATGGGCAAACCTGTGCCATATTGTTATGACACTAATTTGCTAGAG  9015
Sbjct  8941   ............................................................  9000

Query  9016   GGTTCTATTTCTTATAGTGAGCTTCGTCCAGACACTCGTTATGTGCTTATGGATGGTTCC  9075
Sbjct  9001   ............................................................  9060

Query  9076   ATCATACAGTTTCCTAACACTTACCTGGAGGGTTCTGTTAGAGTAGTAACAACTTTTGAT  9135
Sbjct  9061   ............................................................  9120

Query  9136   GCTGAGTACTGTAGACATGGTACATGCGAAAGGTCAGAAGTAGGTATTTGCCTATCTACC  9195
Sbjct  9121   ............................................................  9180

Query  9196   AGTGGTAGATGGGTTCTTAATAATGAGCATTACAGAGCTCTATCAGGAGTTTTCTGTGGT  9255
Sbjct  9181   ............................................................  9240

Query  9256   GTTGATGCGATGAATCTCATAGCTAACATCTTTACTCCTCTTGTGCAACCTGTGGGTGCT  9315
Sbjct  9241   ............................................................  9300

Query  9316   TTAGATGTGTCTGCTTCAGTAGTGGCTGGTGGTATTATTGCCATATTGGTGACTTGTGCT  9375
Sbjct  9301   ............................................................  9360

Query  9376   GCCTACTACTTTATGAAATTCAGACGTGTTTTTGGTGAGTACAACCATGTTGTTGCTGCT  9435
Sbjct  9361   ............................................................  9420

Query  9436   AATGCACTTTTGTTTTTGATGTCTTTCACTATACTCTGTCTGGTACCAGCTTACAGCTTT  9495
Sbjct  9421   ............................................................  9480

Query  9496   CTGCCGGGAGTCTACTCAGTCTTTTACTTGTACTTGACATTCTATTTCACCAATGATGTT  9555
Sbjct  9481   ............................................................  9540

Query  9556   TCATTCTTGGCTCACCTTCAATGGTTTGCCATGTTTTCTCCTATTGTGCCTTTTTGGATA  9615
Sbjct  9541   ............................................................  9600

Query  9616   ACAGCAATCTATGTATTCTGTATTTCTCTGAAGCACTGCCATTGGTTCTTTAACAACTAT  9675
Sbjct  9601   ............................................................  9660

Query  9676   CTTAGGAAAAGAGTCATGTTTAATGGAGTTACATTTAGTACCTTCGAGGAGGCTGCTTTG  9735
Sbjct  9661   ............................................................  9720

Query  9736   TGTACCTTTTTGCTCAACAAGGAAATGTACCTAAAATTGCGTAGCGAGACACTGTTGCCA  9795
Sbjct  9721   ............................................................  9780

Query  9796   CTTACACAGTATAACAGGTATCTTGCTCTATATAACAAGTACAAGTATTTCAGTGGAGCC  9855
Sbjct  9781   ............................................................  9840
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EXHIBIT D

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Sbjct  9901   ............................................................  9960

Query  9976   GTTCTGCAGAGTGGTTTTAGGAAAATGGCATTCCCGTCAGGCAAAGTTGAAGGGTGCATG  10035
Sbjct  9961   ............................................................  10020

Query  10036  GTACAAGTAACCTGTGGAACTACAACTCTTAATGGATTGTGGTTGGATGACACAGTATAC  10095
Sbjct  10021  ............................................................  10080

Query  10096  TGTCCAAGACATGTCATTTGCACAGCAGAAGACATGCTTAATCCTAACTATGAAGATCTG  10155
Sbjct  10081  ............................................................  10140

Query  10156  CTCATTCGCAAATCCAACCATAGCTTTCTTGTTCAGGCTGGCAATGTTCAACTTCGTGTT  10215
Sbjct  10141  ............................................................  10200

Query  10216  ATTGGCCATTCTATGCAAAATTGTCTGCTTAGGCTTAAAGTTGATACTTCTAACCCTAAG  10275
Sbjct  10201  ............................................................  10260

Query  10276  ACACCCAAGTATAAATTTGTCCGTATCCAACCTGGTCAAACATTTTCAGTTCTAGCATGC  10335
Sbjct  10261  ............................................................  10320

Query  10336  TACAATGGTTCACCATCTGGTGTTTATCAGTGTGCCATGAGACCTAATCATACCATTAAA  10395
Sbjct  10321  ............................................................  10380

Query  10396  GGTTCTTTCCTTAATGGATCATGTGGTAGTGTTGGTTTTAACATTGATTATGATTGCGTG  10455
Sbjct  10381  ............................................................  10440

Query  10456  TCTTTCTGCTATATGCATCATATGGAGCTTCCAACAGGAGTACACGCTGGTACTGACTTA  10515
Sbjct  10441  ............................................................  10500

Query  10516  GAAGGTAAATTCTATGGTCCATTTGTTGACAGACAAACTGCACAGGCTGCAGGTACAGAC  10575
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Query  10576  ACAACCATAACATTAAATGTTTTGGCATGGCTGTATGCTGCTGTTATCAATGGTGATAGG  10635
Sbjct  10561  ............................................................  10620

Query  10636  TGGTTTCTTAATAGATTCACCACTACTTTGAATGACTTTAACCTTGTGGCAATGAAGTAC  10695
Sbjct  10621  ............................................................  10680

Query  10696  AACTATGAACCTTTGACACAAGATCATGTTGACATATTGGGACCTCTTTCTGCTCAAACA  10755
Sbjct  10681  ............................................................  10740

Query  10756  GGAATTGCCGTCTTAGATATGTGTGCTGCTTTGAAAGAGCTGCTGCAGAATGGTATGAAT  10815
Sbjct  10741  ............................................................  10800

Query  10816  GGTCGTACTATCCTTGGTAGCACTATTTTAGAAGATGAGTTTACACCATTTGATGTTGTT  10875
Sbjct  10801  ............................................................  10860

Query  10876  AGACAATGCTCTGGTGTTACCTTCCAAGGTAAGTTCAAGAAAATTGTTAAGGGCACTCAT  10935
Sbjct  10861  ............................................................  10920

Query  10936  CATTGGATGCTTTTAACTTTCTTGACATCACTATTGATTCTTGTTCAAAGTACACAGTGG  10995
Sbjct  10921  ............................................................  10980

Query  10996  TCACTGTTTTTCTTTGTTTACGAGAATGCTTTCTTGCCATTTACTCTTGGTATTATGGCA  11055
Sbjct  10981  ............................................................  11040

Query  11056  ATTGCTGCATGTGCTATGCTGCTTGTTAAGCATAAGCACGCATTCTTGTGCTTGTTTCTG  11115
Sbjct  11041  ............................................................  11100

Query  11116  TTACCTTCTCTTGCAACAGTTGCTTACTTTAATATGGTCTACATGCCTGCTAGCTGGGTG  11175
Sbjct  11101  ............................................................  11160

Query  11176  ATGCGTATCATGACATGGCTTGAATTGGCTGACACTAGCTTGTCTGGTTATAGGCTTAAG  11235
Sbjct  11161  ............................................................  11220

Query  11236  GATTGTGTTATGTATGCTTCAGCTTTAGTTTTGCTTATTCTCATGACAGCTCGCACTGTT  11295
Sbjct  11221  ............................................................  11280

Query  11296  TATGATGATGCTGCTAGACGTGTTTGGACACTGATGAATGTCATTACACTTGTTTACAAA  11355
Sbjct  11281  ............................................................  11340

Query  11356  GTCTACTATGGTAATGCTTTAGATCAAGCTATTTCCATGTGGGCCTTAGTTATTTCTGTA  11415
Sbjct  11341  ............................................................  11400

Query  11416  ACCTCTAACTATTCTGGTGTCGTTACGACTATCATGTTTTTAGCTAGAGCTATAGTGTTT  11475
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EXHIBIT D

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Sbjct  11461  ..........................................................  11520

Query  11536  CTTGTTTATTGTTTCTTAGGCTATTGTTGCTGCTGCTACTTTGGCCTTTTCTGTTTACTC  11595
Sbjct  11521  ..........................................................  11580

Query  11596  AACCGTTACTTCAGGCTTACTCTTGGTGTTTATGACTACTTGGTCTCTACACAAGAATTT  11655
Sbjct  11581  ..........................................................  11640

Query  11656  AGGTATATGAACTCCCAGGGGCTTTTGCCTCCTAAGAGTAGTATTGATGCTTTCAAGCTT  11715
Sbjct  11641  ..........................................................  11700

Query  11716  AACATTAAGTTGTTGGGTATTGGAGGTAAACCATGTATCAAGGTTGCTACTGTACAGTCT  11775
Sbjct  11701  ..........................................................  11760

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Sbjct  11821  ..........................................................  11880

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Sbjct  11941  ..........................................................  12000

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Sbjct  12001  ..........................................................  12060

Query  12076  CAGGAGGCCTATGAGCAGGCTGTAGCTAATGGTGATTCTGAAGTCGTTCTCAAAAAGTTA  12135
Sbjct  12061  ..........................................................  12120

Query  12136  AAGAAATCTTTGAATGTGGCTAAATCTGAGTTTGACCGTGATGCTGCCATGCAACGCAAG  12195
Sbjct  12121  ..........................................................  12180

Query  12196  TTGGAAAAGATGGCAGATCAGGCTATGACCCAAATGTACAAACAGGCAAGATCTGAGGAC  12255
Sbjct  12181  ..........................................................  12240

Query  12256  AAGAGGGCAAAAGTAACTAGTGCTATGCAAACAATGCTCTTCACTATGCTTAGGAAGCTT  12315
Sbjct  12241  ..........................................................  12300

Query  12316  GATAATGATGCACTTAACAACATTATCAACAATGCGCGTGATGGTTGTGTTCCACTCAAC  12375
Sbjct  12301  ..........................................................  12360

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Sbjct  12361  ..........................................................  12420

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Sbjct  12421  ..........................................................  12480

Query  12496  GTTGTTGATGCGGATAGCAAGATTGTTCAACTTAGTGAAATTAACATGGACAATTCACCA  12555
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Query  12556  AATTTGGCTTGGCCTCTTATTGTTACAGCTCTAAGAGCCAACTCAGCTGTTAAACTACAG  12615
Sbjct  12541  ..........................................................  12600

Query  12616  AATAATGAACTGAGTCCAGTAGCACTACGACAGATGTCCTGTGCGGCTGGTACCACACAA  12675
Sbjct  12601  ..........................................................  12660

Query  12676  ACAGCTTGTACTGATGACAATGCACTTGCCTACTATAACAATTCGAAGGGAGGTAGGTTT  12735
Sbjct  12661  ..........................................................  12720

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Sbjct  12721  ..........................................................  12780

Query  12796  GGTACAGGTACAATTTACACAGAACTGGAACCACCTTGTAGGTTTGTTACAGACACACCA  12855
Sbjct  12781  ..........................................................  12840

Query  12856  AAAGGGCCTAAAGTGAAATACTTGTACTTCATCAAAGGCTTAAACAACCTAAATAGAGGT  12915
Sbjct  12841  ..........................................................  12900

Query  12916  ATGGTGCTGGGCAGTTTAGCTGCTACAGTACGTCTTCAGGCTGGAAATGCTACAGAAGTA  12975
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Sbjct  12961  ..........................................................  13020
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EXHIBIT D

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Query  13096  CACACTGGTACAGGACAGGCAATTACTGTAACACCAGAAGCTAACATGGACCAAGAGTCC  13155
Sbjct  13081  ............................................................  13140

Query  13156  TTTGGTGGTGCTTCATGTTGTCTGTATTGTAGATGCCACATTGACCATCCAAATCCTAAA  13215
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Query  13216  GGATTCTGTGACTTGAAAGGTAAGTACGTCCAAATACCTACCACTTGTGCTAATGACCCA  13275
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Query  13276  GTGGGTTTTACACTTAGAAACACAGTCTGTACCGTCTGCGGAATGTGGAAAGGTTATGGC  13335
Sbjct  13261  ............................................................  13320

Query  13336  TGTAGTTGTGACCAACTCCGCGAACCCTTGATGCAGTCTGCGGATGCATCAACGTTTTTA  13395
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Sbjct  13381  ............................................................  13440

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Sbjct  13501  ............................................................  13560

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Sbjct  13561  ............................................................  13620

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Sbjct  13621  ............................................................  13680

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Sbjct  13681  ............................................................  13740

Query  13756  ATGCTCTACGTCATTTTGATGAGGGTAATTGTGATACATTAAAAGAAATACTCGTCACAT  13815
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Query  14056  GCGGAGTTCCTATTGTGGATTCATATTACTCATTGCTGATGCCCATCCTCACTTTGACTA  14115
Sbjct  14041  ............................................................  14100

Query  14116  GGGCATTGGCTGCTGAGTCCCATATGGATGCTGATCTCGCAAAACCACTTATTAAGTGGG  14175
Sbjct  14101  ............................................................  14160

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Sbjct  14221  ............................................................  14280

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Sbjct  14341  ............................................................  14400

Query  14416  GTGAGTTAGGAGTCGTACATAATCAGGATGTAAACTTACATAGCTCGCGTCTCAGTTTCA  14475
Sbjct  14401  ............................................................  14460

Query  14476  AGGAACTTTTAGTGTATGCTGCTGATCCAGCTATGCATGCAGCTTCTGGCAATTTATTGC  14535
Sbjct  14461  ............................................................  14520

Query  14536  TAGATAAACGCACTACATGCTTTTCAGTAGCTGCACTAACAAACAATGTTGCTTTTCAAA  14595
Sbjct  14521  ............................................................  14580
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EXHIBIT D

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Query  14656  TTAAGGAAGGAAGTTCTGTTGAACTAAAACACTTCTTCTTTGCTCAGGATGGCAACGCTG  14715
Sbjct  14641  ............................................................  14700

Query  14716  CTATCAGTGATTATGACTATTATCGTTATAATCTGCCAACAATGTGTGATATCAGACAAC  14775
Sbjct  14701  ............................................................  14760

Query  14776  TCCTATTCGTAGTTGAAGTTGTTGATAAATACTTTGATTGTTACGATGGTGGCTGTATTA  14835
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Query  14836  ATGCCAACCAAGTAATCGTTAACAATCTGGATAAATCAGCTGGTTTCCCATTTAATAAAT  14895
Sbjct  14821  ............................................................  14880

Query  14896  GGGGTAAGGCTAGACTTTATTATGACTCAATGAGTTATGAGGATCAAGATGCACTTTTCG  14955
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Query  14956  CGTATACTAAGCGTAATGTCATCCCTACTATAACTCAAATGAATCTTAAGTATGCCATTA  15015
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Query  15016  GTGCAAAGAATAGAGCTCGCACCGTAGCTGGTGTCTCTATCTGTAGTACTATGACAAATA  15075
Sbjct  15001  ............................................................  15060

Query  15076  GACAGTTTCATCAGAAATTATTGAAGTCAATAGCCGCCACTAGAGGAGCTACTGTGGTAA  15135
Sbjct  15061  ............................................................  15120

Query  15136  TTGGAACAAGCAAGTTTTACGGTGGCTGGCATAATATGTTAAAAACTGTTTACAGTGATG  15195
Sbjct  15121  ............................................................  15180

Query  15196  TAGAAACTCCACACCTTATGGGTTGGGATTATCCAAAATGTGACAGAGCCATGCCTAACA  15255
Sbjct  15181  ............................................................  15240

Query  15256  TGCTTAGGATAATGGCCTCTCTTGTTCTTGCTCGCAAACATAACACTTGCTGTAACTTAT  15315
Sbjct  15241  ............................................................  15300

Query  15316  CACACCGTTTCTACAGGTTAGCTAACGAGTGTGCGCAAGTATTAAGTGAGATGGTCATGT  15375
Sbjct  15301  ............................................................  15360

Query  15376  GTGGCGGCTCACTATATGTTAAACCAGGTGGAACATCATCCGGTGATGCTACAACTGCTT  15435
Sbjct  15361  ............................................................  15420

Query  15436  ATGCTAATAGTGTCTTTAACATTTGTCAAGCTGTTACAGCCAATGTAAATGCACTTCTTT  15495
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Query  15556  AGTGTCTCTATAGAAATAGGGATGTTGATCATGAATTCGTGGATGAGTTTTACGCTTACC  15615
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Sbjct  15601  ............................................................  15660

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Sbjct  15661  ............................................................  15720

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Sbjct  15781  ............................................................  15840

Query  15856  TGCCTTACCCAGATCCATCAAGAATATTAGGCGCAGGCTGTTTTGTCGATGATATTGTCA  15915
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Query  15916  AAACAGATGGTACACTTATGATTGAAAGGTTCGTGTCACTGGCTATTGATGCTTACCCAC  15975
Sbjct  15901  ............................................................  15960

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EXHIBIT D

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Sbjct  16261  ............................................................  16320

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Sbjct  16381  ............................................................  16440

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Sbjct  16921  ............................................................  16980

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Sbjct  16981  ............................................................  17040

Query  17056  TCTATTACCCATCTGCTCGCATAGTGTATACGGCATGCTCTCATGCAGCTGTTGATGCCC  17115
Sbjct  17041  ............................................................  17100

Query  17116  TATGTGAAAAGGCATTAAAATATTTGCCCATAGATAAATGTAGTAGAATCATACCTGCGC  17175
Sbjct  17101  ............................................................  17160

Query  17176  GTGCGCGCGTAGAGTGTTTTGATAAATTCAAAGTGAATTCAACACTAGAACAGTATGTTT  17235
Sbjct  17161  ............................................................  17220

Query  17236  TCTGCACTGTAAATGCATTGCCAGAAACAACTGCTGACATTGTAGTCTTTGATGAAATCT  17295
Sbjct  17221  ............................................................  17280

Query  17296  CTATGGCTACTAATTATGACTTGAGTGTTGTCAATGCTAGACTTCGTGCAAAACACTACG  17355
Sbjct  17281  ............................................................  17340

Query  17356  TCTATATTGGCGATCCTGCTCAATTACCAGCCCCCCGCACATTGCTGACTAAAGGCACAC  17415
Sbjct  17341  ............................................................  17400

Query  17416  TAGAACCAGAATATTTTAATTCAGTGTGCAGACTTATGAAAACAATAGGTCCAGACATGT  17475
Sbjct  17401  ............................................................  17460

Query  17476  TCCTTGGAACTTGTCGCCGTTGTCCTGCTGAAATTGTTGACACTGTGAGTGCTTTAGTTT  17535
Sbjct  17461  ............................................................  17520

Query  17536  ATGACAATAAGCTAAAAGCACACAAGGATAAGTCAGCTCAATGCTTCAAAATGTTCTACA  17595
Sbjct  17521  ............................................................  17580

Query  17596  AAGGTGTTATTACACATGATGTTTCATCTGCAATCAACAGACCTCAAATAGGCGTTGTAA  17655
Sbjct  17581  ............................................................  17640

Query  17656  GAGAATTTCTTACACGCAATCCTGCTTGGAGAAAAGCTGTTTTTATCTCACCTTATAATT  17715
Sbjct  17641  ............................................................  17700

Query  17716  CACAGAACGCTGTAGCTTCAAAAATCTTAGGATTGCCTACGCAGACTGTTGATTCATCAC  17775
Sbjct  17701  ............................................................  17760
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EXHIBIT D

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Query  17776  AGGGTTCTGAATATGACTATGTCATATTCACACAAACTACTGAAACAGCACACTCTTGTA  17835
Sbjct  17761  ............................................................  17820

Query  17836  ATGTCAACCGCTTCAATGTGGCTATCACAAGGGCAAAAATTGGCATTTTGTGCATAATGT  17895
Sbjct  17821  ............................................................  17880

Query  17896  CTGATAGAGATCTTTATGACAAACTGCAATTTACAAGTCTAGAAATACCACGTCGCAATG  17955
Sbjct  17881  ............................................................  17940

Query  17956  TGGCTACATTACAAGCAGAAAATGTAACTGGACTTTTTAAGGACTGTAGTAAGATCATTA  18015
Sbjct  17941  ............................................................  18000

Query  18016  CTGGTCTTCATCCTACACAGGCACCTACACACCTCAGCGTTGATATAAAGTTCAAGACTG  18075
Sbjct  18001  ............................................................  18060

Query  18076  AAGGATTATGTGTTGACATACCAGGCATACCAAAGGACATGACCTACCGTAGACTCATCT  18135
Sbjct  18061  ............................................................  18120

Query  18136  CTATGATGGGTTTCAAAATGAATTACCAAGTCAATGGTTACCCTAATATGTTTATCACCC  18195
Sbjct  18121  ............................................................  18180

Query  18196  GCGAAGAAGCTATTCGTCACGTTCGTGCGTGGATTGGCTTTGATGTAGAGGGCTGTCATG  18255
Sbjct  18181  ............................................................  18240

Query  18256  CAACTAGAGATGCTGTGGGTACTAACCTACCTCTCCAGCTAGGATTTTCTACAGGTGTTA  18315
Sbjct  18241  ............................................................  18300

Query  18316  ACTTAGTAGCTGTACCGACTGGTTATGTTGACACTGAAAATAACACAGAATTCACCAGAG  18375
Sbjct  18301  ............................................................  18360

Query  18376  TTAATGCAAAACCTCCACCAGGTGACCAGTTTAAACATCTTATACCACTCATGTATAAAG  18435
Sbjct  18361  ............................................................  18420

Query  18436  GCTTGCCCTGGAATGTAGTGCGTATTAAGATAGTACAAATGCTCAGTGATACACTGAAAG  18495
Sbjct  18421  ............................................................  18480

Query  18496  GATTGTCAGACAGAGTCGTGTTCGTCCTTTGGGCGCATGGCTTTGAGCTTACATCAATGA  18555
Sbjct  18481  ............................................................  18540

Query  18556  AGTACTTTGTCAAGATTGGACCTGAAAGAACGTGTTGTCTGTGTGACAAACGTGCAACTT  18615
Sbjct  18541  ............................................................  18600

Query  18616  GCTTTTCTACTTCATCAGATACTTATGCCTGCTGGAATCATTCTGTGGGTTTTGACTATG  18675
Sbjct  18601  ............................................................  18660

Query  18676  TCTATAACCCATTTATGATTGATGTTCAGCAGTGGGGCTTTACGGGTAACCTTCAGAGTA  18735
Sbjct  18661  ............................................................  18720

Query  18736  ACCATGACCAACATTGCCAGGTACATGGAAATGCACATGTGGCTAGTTGTGATGCTATCA  18795
Sbjct  18721  ............................................................  18780

Query  18796  TGACTAGATGTTTAGCAGTCCATGAGTGCTTTGTTAAGCGCGTTGATTGGTCTGTTGAAT  18855
Sbjct  18781  ............................................................  18840

Query  18856  ACCCTATTATAGGAGATGAACTGAGGGTTAATTCTGCTTGCAGAAAAGTACAACACATGG  18915
Sbjct  18841  ............................................................  18900

Query  18916  TTGTGAAGTCTGCATTGCTTGCTGATAAGTTTCCAGTTCTTCATGACATTGGAAATCCAA  18975
Sbjct  18901  ............................................................  18960

Query  18976  AGGCTATCAAGTGTGTGCCTCAGGCTGAAGTAGAATGGAAGTTCTACGATGCTCAGCCAT  19035
Sbjct  18961  ............................................................  19020

Query  19036  GTAGTGACAAAGCTTACAAAATAGAGGAACTCTTCTATTCTTATGCTACACATCACGATA  19095
Sbjct  19021  ............................................................  19080

Query  19096  AATTCACTGATGGTGTTTGTTTGTTTTGGAATTGTAACGTTGATCGTTACCCAGCCAATG  19155
Sbjct  19081  ............................................................  19140

Query  19156  CAATTGTGTGTAGGTTTGACACAAGAGTCTTGTCAAACTTGAACTTACCAGGCTGTGATG  19215
Sbjct  19141  ............................................................  19200

Query  19216  GTGGTAGTTTGTATGTGAATAAGCATGCATTCCACACTCCAGCTTTCGATAAAAGTGCAT  19275
Sbjct  19201  ............................................................  19260

Query  19276  TTACTAATTTAAAGCAATTGCCTTTCTTTTACTATTCTGATAGTCCTTGTGAGTCTCATG  19335
Sbjct  19261  ............................................................  19320
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EXHIBIT D

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Query  19336  GCAAACAAGTAGTGTCGGATATTGATTATGTTCCACTCAAATCTGCTACGTGTATTACAC  19395
Sbjct  19321  ............................................................  19380

Query  19396  GATGCAATTTAGGTGGTGCTGTTTGCAGACACCATGCAAATGAGTACCGACAGTACTTGG  19455
Sbjct  19381  ............................................................  19440

Query  19456  ATGCATATAATATGATGATTTCTGCTGGATTTAGCCTATGGATTTACAAACAATTTGATA  19515
Sbjct  19441  ............................................................  19500

Query  19516  CTTATAACCTGTGGAATACATTTACCAGGTTACAGAGTTTAGAAAATGTGGCTTATAATG  19575
Sbjct  19501  ............................................................  19560

Query  19576  TTGTTAATAAAGGACACTTTGATGGACACGCCGGCGAAGCACCTGTTTCCATCATTAATA  19635
Sbjct  19561  ............................................................  19620

Query  19636  ATGCTGTTTACACAAAGGTAGATGGTATTGATGTGGAGATCTTTGAAAATAAGACAACAC  19695
Sbjct  19621  ............................................................  19680

Query  19696  TTCCTGTTAATGTTGCATTTGAGCTTTGGGCTAAGCGTAACATTAAACCAGTGCCAGAGA  19755
Sbjct  19681  ............................................................  19740

Query  19756  TTAAGATACTCAATAATTTGGGTGTTGATATCGCTGCTAATACTGTAATCTGGGACTACA  19815
Sbjct  19741  ............................................................  19800

Query  19816  AAAGAGAAGCCCCAGCACATGTATCTACAATAGGTGTCTGCACAATGACTGACATTGCCA  19875
Sbjct  19801  ............................................................  19860

Query  19876  AGAAACCTACTGAGAGTGCTTGTTCTTCACTTACTGTCTTGTTTGATGGTAGAGTGGAAG  19935
Sbjct  19861  ............................................................  19920

Query  19936  GACAGGTAGACCTTTTTAGAAACGCCCGTAATGGTGTTTTAATAACAGAAGGTTCAGTCA  19995
Sbjct  19921  ............................................................  19980

Query  19996  AAGGTCTAACACCTTCAAAGGGACCAGCACAAGCTAGCGTCAATGGAGTCACATTAATTG  20055
Sbjct  19981  ............................................................  20040

Query  20056  GAGAATCAGTAAAAACACAGTTTAACTACTTTAAGAAAGTAGACGGCATTATTCAACAGT  20115
Sbjct  20041  ............................................................  20100

Query  20116  TGCCTGAAACCTACTTTACTCAGAGCAGAGACTTAGAGGATTTTAAGCCCAGATCACAAA  20175
Sbjct  20101  ............................................................  20160

Query  20176  TGGAAACTGACTTTCTCGAGCTCGCTATGGATGAATTCATACAGCGATATAAGCTCGAGG  20235
Sbjct  20161  ............................................................  20220

Query  20236  GCTATGCCTTCGAACACATCGTTTATGGAGATTTCAGTCATGGACAACTTGGCGGTCTTC  20295
Sbjct  20221  ............................................................  20280

Query  20296  ATTTAATGATAGGCTTAGCCAAGCGCTCACAAGATTCACCACTTAAATTAGAGGATTTTA  20355
Sbjct  20281  ............................................................  20340

Query  20356  TCCCTATGGACAGCACAGTGAAAAATTACTTCATAACAGATGCGCAAACAGGTTCATCAA  20415
Sbjct  20341  ............................................................  20400

Query  20416  AATGTGTGTGTTCTGTGATTGATCTTTTACTTGATGACTTTGTCGAGATAATAAAGTCAC  20475
Sbjct  20401  ............................................................  20460

Query  20476  AAGATTTGTCAGTGATTTCAAAAGTGGTCAAGGTTACAATTGACTATGCTGAAATTTCAT  20535
Sbjct  20461  ............................................................  20520

Query  20536  TCATGCTTTGGTGTAAGGATGGACATGTTGAAACCTTCTACCCAAAACTACAAGCAAGTC  20595
Sbjct  20521  ............................................................  20580

Query  20596  AAGCGTGGCAACCAGGTGTTGCGATGCCTAACTTGTACAAGATGCAAAGAATGCTTCTTG  20655
Sbjct  20581  G...........................................................  20640

Query  20656  AAAAGTGTGACCTTCAGAATTATGGTGAAAATGCTGTTATACCAAAAGGAATAATGATGA  20715
Sbjct  20641  ............................................................  20700

Query  20716  ATGTCGCAAAGTATACTCAACTGTGTCAATACTTAAATACACTTACTTTAGCTGTACCCT  20775
Sbjct  20701  ............................................................  20760

Query  20776  ACAACATGAGAGTTATTCACTTTGGTGCTGGCTCTGATAAAGGAGTTGCACCAGGTACAG  20835
Sbjct  20761  ............................................................  20820

Query  20836  CTGTGCTCAGACAATGGTTGCCAACTGGCACACTACTTGTCGATTCAGATCTTAATGACT  20895
Sbjct  20821  ............................................................  20880

Query  20896  TCGTCTCCGACGCAGATTCTACTTTAATTGGAGACTGTGCAACAGTACATACGGCTAATA  20955
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EXHIBIT D

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Sbjct  20881  ..............T.............................................  20940

Query  20956  AATGGGACCTTATTATTAGCGATATGTATGACCCTAGGACCAAACATGTGACAAAAGAGA  21015
Sbjct  20941  ............................................................  21000

Query  21016  ATGACTCTAAAGAAGGGTTTTTCACTTATCTGTGTGGATTTATAAAGCAAAAACTAGCCC  21075
Sbjct  21001  ............................................................  21060

Query  21076  TGGGTGGTTCTATAGCTGTAAAGATAACAGAGCATTCTTGGAATGCTGACCTTTACAAGC  21135
Sbjct  21061  ............................................................  21120

Query  21136  TTATGGGCCATTTCTCATGGTGGACAGCTTTTGTTACAAATGTAAATGCATCATCATCGG  21195
Sbjct  21121  ............................................................  21180

Query  21196  AAGCATTTTTAATTGGGGCTAACTATCTTGGCAAGCCGAAGGAACAAATTGATGGCTATA  21255
Sbjct  21181  ............................................................  21240

Query  21256  CCATGCATGCTAACTACATTTTCTGGAGGAACACAAATCCTATCCAGTTGTCTTCCTATT  21315
Sbjct  21241  ............................................................  21300

Query  21316  CACTCTTTGACATGAGCAAATTTCCTCTTAAATTAAGAGGAACTGCTGTAATGTCTCTTA  21375
Sbjct  21301  ............................................................  21360

Query  21376  AGGAGAATCAAATCAATGATATGATTTATTCTCTTCTGGAAAAAGGTAGGCTTATCATTA  21435
Sbjct  21361  ............................................................  21420

Query  21436  GAGAAAACAACAGAGTTGTGGTTTCAAGTGATATTCTTGTTAACAACTAAACGAACATGT  21495
Sbjct  21421  ............................................................  21480

Query  21496  TTATTTTCTTATTATTTCTTACTCTCACTAGTGGTAGTGACCTTGACCGGTGCACCACTT  21555
Sbjct  21481  ............................................................  21540

Query  21556  TTGATGATGTTCAAGCTCCTAATTACACTCAACATACTTCATCTATGAGGGGGGTTTACT  21615
Sbjct  21541  ............................................................  21600

Query  21616  ATCCTGATGAAATTTTTAGATCAGACACTCTTTATTTAACTCAGGATTTATTTCTTCCAT  21675
Sbjct  21601  ............................................................  21660

Query  21676  TTTATTCTAATGTTACAGGGTTTCATACTATTAATCATACGTTTGGCAACCCTGTCATAC  21735
Sbjct  21661  ............................................................  21720

Query  21736  CTTTTAAGGATGGTATTTATTTTGCTGCCACAGAGAAATCAAATGTTGTCCGTGGTTGGG  21795
Sbjct  21721  ............................................................  21780

Query  21796  TTTTTGGTTCTACCATGAACAACAAGTCACAGTCGGTGATTATTATTAACAATTCTACTA  21855
Sbjct  21781  ............................................................  21840

Query  21856  ATGTTGTTATACGAGCATGTAACTTTGAATTGTGTGACAACCCTTTCTTTGCTGTTTCTA  21915
Sbjct  21841  ............................................................  21900

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Sbjct  21901  ............................................................  21960

Query  21976  AGTACATATCTGATGCCTTTTCGCTTGATGTTTCAGAAAAGTCAGGTAATTTTAAACACT  22035
Sbjct  21961  ............................................................  22020

Query  22036  TACGAGAGTTTGTGTTTAAAAATAAAGATGGGTTTCTCTATGTTTATAAGGGCTATCAAC  22095
Sbjct  22021  ............................................................  22080

Query  22096  CTATAGATGTAGTTCGTGATCTACCTTCTGGTTTTAACACTTTGAAACCTATTTTTAAGT  22155
Sbjct  22081  ............................................................  22140

Query  22156  TGCCTCTTGGTATTAACATTACAAATTTTAGAGCCATTCTTACAGCCTTTTCACCTGCTC  22215
Sbjct  22141  ............................................................  22200

Query  22216  AAGACATTTGGGGCACGTCAGCTGCAGCCTATTTTGTTGGCTATTTAAAGCCAACTACAT  22275
Sbjct  22201  ............................................................  22260

Query  22276  TTATGCTCAAGTATGATGAAAATGGTACAATCACAGATGCTGTTGATTGTTCTCAAAATC  22335
Sbjct  22261  ............................................................  22320

Query  22336  CACTTGCTGAACTCAAATGCTCTGTTAAGAGCTTTGAGATTGACAAAGGAATTTACCAGA  22395
Sbjct  22321  ............................................................  22380

Query  22396  CCTCTAATTTCAGGGTTGTTCCCTCAGGAGATGTTGTGAGATTCCCTAATATTACAAACT  22455
Sbjct  22381  ............................................................  22440

Query  22456  TGTGTCCTTTTGGAGAGGTTTTTAATGCTACTAAATTCCCTTCTGTCTATGCATGGGAGA  22515
Sbjct  22441  ............................................................  22500
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EXHIBIT D

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Query  22516  GaaaaaaaaTTTCTAATTGTGTTGCTGATTACTCTGTGCTCTACAACTCAACAttttttt  22575
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Query  22576  CAACCTTTAAGTGCTATGGCGTTTCTGCCACTAAGTTGAATGATCTTTGCTTCTCCAATG  22635
Sbjct  22561  ............................................................  22620

Query  22636  TCTATGCAGATTCTTTTGTAGTCAAGGGAGATGATGTAAGACAAATAGCGCCAGGACAAA  22695
Sbjct  22621  ............................................................  22680

Query  22696  CTGGTGTTATTGCTGATTATAATTATAAATTGCCAGATGATTTCATGGGTTGTGTCCTTG  22755
Sbjct  22681  ............................................................  22740

Query  22756  CTTGGAATACTAGGAACATTGATGCTACTTCAACTGGTAATTATAATTATAAATATAGGT  22815
Sbjct  22741  ............................................................  22800

Query  22816  ATCTTAGACATGGCAAGCTTAGGCCCTTTGAGAGAGACATATCTAATGTGCCTTTCTCCC  22875
Sbjct  22801  ............................................................  22860

Query  22876  CTGATGGCAAACCTTGCACCCCACCTGCTCTTAATTGTTATTGGCCATTAAATGATTATG  22935
Sbjct  22861  ............................................................  22920

Query  22936  GTTTTTACACCACTACTGGCATTGGCTACCAACCTTACAGAGTTGTAGTACTTTCTTTTG  22995
Sbjct  22921  ............................................................  22980

Query  22996  AACTTTTAAATGCACCGGCCACGGTTTGTGGACCAAAATTATCCACTGACCTTATTAAGA  23055
Sbjct  22981  ............................................................  23040

Query  23056  ACCAGTGTGTCAATTTTAATTTTAATGGACTCACTGGTACTGGTGTGTTAACTCCTTCTT  23115
Sbjct  23041  ............................................................  23100

Query  23116  CAAAGAGATTTCAACCATTTCAACAATTTGGCCGTGATGTTTCTGATTTCACTGATTCCG  23175
Sbjct  23101  ............................................................  23160

Query  23176  TTCGAGATCCTAAAACATCTGAAATATTAGACATTTCACCTTGCGCTTTTGGGGGTGTAA  23235
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Query  23236  GTGTAATTACACCTGGAACAAATGCTTCATCTGAAGTTGCTGTTCTATATCAAGATGTTA  23295
Sbjct  23221  ............................................................  23280

Query  23296  ACTGCACTGATGTTTCTACAGCAATTCATGCAGATCAACTCACACCAGCTTGGCGCATAT  23355
Sbjct  23281  ............................................................  23340

Query  23356  ATTCTACTGGAAACAATGTATTCCAGACTCAAGCAGGCTGTCTTATAGGAGCTGAGCATG  23415
Sbjct  23341  ............................................................  23400

Query  23416  TCGACACTTCTTATGAGTGCGACATTCCTATTGGAGCTGGCATTTGTGCTAGTTACCATA  23475
Sbjct  23401  ............................................................  23460

Query  23476  CAGTTTCTTTATTACGTAGTACTAGCCAAAAATCTATTGTGGCTTATACTATGTCTTTAG  23535
Sbjct  23461  ............................................................  23520

Query  23536  GTGCTGATAGTTCAATTGCTTACTCTAATAACACCATTGCTATACCTACTAACTTTTCAA  23595
Sbjct  23521  ............................................................  23580

Query  23596  TTAGCATTACTACAGAAGTAATGCCTGTTTCTATGGCTAAAACCTCCGTAGATTGTAATA  23655
Sbjct  23581  ............................................................  23640

Query  23656  TGTACATCTGCGGAGATTCTACTGAATGTGCTAATTTGCTTCTCCAATATGGTAGCTTTT  23715
Sbjct  23641  ............................................................  23700

Query  23716  GCACACAACTAAATCGTGCACTCTCAGGTATTGCTGCTGAACAGGATCGCAACACACGTG  23775
Sbjct  23701  ............................................................  23760

Query  23776  AAGTGTTCGCTCAAGTCAAACAAATGTACAAAACCCCAACTTTGAAATATTTTGGTGGTT  23835
Sbjct  23761  ............................................................  23820

Query  23836  TTAATTTTTCACAAATATTACCTGACCCTCTAAAGCCAACTAAGAGGTCTTTTATTGAGG  23895
Sbjct  23821  ............................................................  23880

Query  23896  ACTTGCTCTTTAATAAGGTGACACTCGCTGATGCTGGCTTCATGAAGCAATATGGCGAAT  23955
Sbjct  23881  ............................................................  23940

Query  23956  GCCTAGGTGATATTAATGCTAGAGATCTCATTTGTGCGCAGAAGTTCAATGGACTTACAG  24015
Sbjct  23941  ............................................................  24000

Query  24016  TGTTGCCACCTCTGCTCACTGATGATATGATTGCTGCCTACACTGCTGCTCTAGTTAGTG  24075
Sbjct  24001  ............................................................  24060
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EXHIBIT D

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Query  24076  GTACTGCCACTGCTGGATGGACATTTGGTGCTGGCGCTGCTCTTCAAATACCTTTTGCTA  24135
Sbjct  24061  ............................................................  24120

Query  24136  TGCAAATGGCATATAGGTTCAATGGCATTGGAGTTACCCAAAATGTTCTCTATGAGAACC  24195
Sbjct  24121  ............................................................  24180

Query  24196  AAAAACAAATCGCCAACCAATTTAACAAGGCGATTAGTCAAATTCAAGAATCACTTACAA  24255
Sbjct  24181  ............................................................  24240

Query  24256  CAACATCAACTGCATTGGGCAAGCTGCAAGACGTTGTTAACCAGAATGCTCAAGCATTAA  24315
Sbjct  24241  ............................................................  24300

Query  24316  ACACACTTGTTAAACAACTTAGCTCTAATTTTGGTGCAATTTCAAGTGTGCTAAATGATA  24375
Sbjct  24301  ............................................................  24360

Query  24376  TCCTTTCGCGACTTGATAAAGTCGAGGCGGAGGTACAAATTGACAGGTTAATTACAGGCA  24435
Sbjct  24361  ............................................................  24420

Query  24436  GACTTCAAAGCCTTCAAACCTATGTAACACAACAACTAATCAGGGCTGCTGAAATCAGGG  24495
Sbjct  24421  ............................................................  24480

Query  24496  CTTCTGCTAATCTTGCTGCTACTAAAATGTCTGAGTGTGTTCTTGGACAATCAAAAAGAG  24555
Sbjct  24481  ............................................................  24540

Query  24556  TTGACTTTTGTGGAAAGGGCTACCACCTTATGTCCTTCCCACAAGCAGCCCCGCATGGTG  24615
Sbjct  24541  ............................................................  24600

Query  24616  TTGTCTTCCTACATGTCACGTATGTGCCATCCCAGGAGAGGAACTTCACCACAGCGCCAG  24675
Sbjct  24601  ............................................................  24660

Query  24676  CAATTTGTCATGAAGGCAAAGCATACTTCCCTCGTGAAGGTGTTTTTGTGTTTAATGGCA  24735
Sbjct  24661  ............................................................  24720

Query  24736  CTTCTTGGTTTATTACACAGAGGAACTTCTTTTCTCCACAAATAATTACTACAGACAATA  24795
Sbjct  24721  ............................................................  24780

Query  24796  CATTTGTCTCAGGAAATTGTGATGTCGTTATTGGCATCATTAACAACACAGTTTATGATC  24855
Sbjct  24781  ............................................................  24840

Query  24856  CTCTGCAACCTGAGCTTGACTCATTCAAAGAAGAGCTGGACAAGTACTTCAAAAATCATA  24915
Sbjct  24841  ............................................................  24900

Query  24916  CATCACCAGATGTTGATCTTGGCGACATTTCAGGCATTAACGCTTCTGTCGTCAACATTC  24975
Sbjct  24901  ............................................................  24960

Query  24976  AAAAAGAAATTGACCGCCTCAATGAGGTCGCTAAAAATTTAAATGAATCACTCATTGACC  25035
Sbjct  24961  ............................................................  25020

Query  25036  TTCAAGAATTGGGAAAATATGAGCAATATATTAAATGGCCTTGGTATGTTTGGCTCGGCT  25095
Sbjct  25021  ............................................................  25080

Query  25096  TCATTGCTGGACTAATTGCCATCGTCATGGTTACAATCTTGCTTTGTTGCATGACTAGTT  25155
Sbjct  25081  ............................................................  25140

Query  25156  GTTGCAGTTGCCTCAAGGGTGCATGCTCTTGTGGTTCTTGCTGCAAGTTTGATGAGGATG  25215
Sbjct  25141  ............................................................  25200

Query  25216  ACTCTGAGCCAGTTCTCAAGGGTGTCAAATTACATTACACATAAACGAACTTATGGATTT  25275
Sbjct  25201  ............................................................  25260

Query  25276  GTTTATGAGATTTTTTACTCTTAGATCAATTACTGCACAGCCAGTAAAAATTGACAATGC  25335
Sbjct  25261  ..................G.........................................  25320

Query  25336  TTCTCCTGCAAGTACTGTTCATGCTACAGCAACGATACCGCTACAAGCCTCACTCCCTTT  25395
Sbjct  25321  ............................................................  25380

Query  25396  CGGATGGCTTGTTATTGGCGTTGCATTTCTTGCTGTTTTTCAGAGCGCTACCAAAATAAT  25455
Sbjct  25381  ............................................................  25440

Query  25456  TGCGCTCAATAAAAGATGGCAGCTAGCCCTTTATAAGGGCTTCCAGTTCATTTGCAATTT  25515
Sbjct  25441  ............................................................  25500

Query  25516  ACTGCTGCTATTTGTTACCATCTATTCACATCTTTTGCTTGTCGCTGCAGGTATGGAGGC  25575
Sbjct  25501  ............................................................  25560

Query  25576  GCAATTTTTGTACCTCTATGCCTTGATATATTTTCTACAATGCATCAACGCATGTAGAAT  25635
Sbjct  25561  ............................................................  25620

Query  25636  TATTATGAGATGTTGGCTTTGTTGGAAGTGCAAATCCAAGAACCCATTACTTTATGATGC  25695
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EXHIBIT D

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Query  25696  CAACTACTTTGTTTGCTGGCACACACATAACTATGACTACTGTATACCATATAACAGTGT  25755
Sbjct  25681  ............................................................  25740

Query  25756  CACAGATACAATTGTCGTTACTGAAGGTGACGGCATTTCAACACCAAAACTCAAAGAAGA  25815
Sbjct  25741  ............................................................  25800

Query  25816  CTACCAAATTGGTGGTTATTCTGAGGATAGGCACTCAGGTGTTAAAGACTATGTCGTTGT  25875
Sbjct  25801  ............................................................  25860

Query  25876  ACATGGCTATTTCACCGAAGTTTACTACCAGCTTGAGTCTACACAAATTACTACAGACAC  25935
Sbjct  25861  ............................................................  25920

Query  25936  TGGTATTGAAAATGCTACATTCTTCATCTTTAACAAGCTTGTTAAAGACCCACCGAATGT  25995
Sbjct  25921  ............................................................  25980

Query  25996  GCAAATACACACAATCGACGGCTCTTCAGGAGTTGCTAATCCAGCAATGGATCCAATTTA  26055
Sbjct  25981  ............................................................  26040

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Sbjct  26041  ............................................................  26100

Query  26116  TATGTACTCATTCGTTTCGGAAGAAACAGGTACGTTAATAGTTAATAGCGTACTTCTTTT  26175
Sbjct  26101  ............................................................  26160

Query  26176  TCTTGCTTTCGTGGTATTCTTGCTAGTCACACTAGCCATCCTTACTGCGCTTCGATTGTG  26235
Sbjct  26161  ............................................................  26220

Query  26236  TGCGTACTGCTGCAATATTGTTAACGTGAGTTTAGTAAAACCAACGGTTTACGTCTACTC  26295
Sbjct  26221  ............................................................  26280

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Sbjct  26281  ............................................................  26340

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Sbjct  26401  ............................................................  26460

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Sbjct  26461  ............................................................  26520

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Sbjct  26521  ............................................................  26580

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Sbjct  26641  ............................................................  26700

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Query  26776  ATTGTGACCAGACCGCTCATGGAAAGTGAACTTGTCATTGGTGCTGTGATCATTCGTGGT  26835
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Query  26836  CACTTGCGAATGGCCGGACACTCCCTAGGGCGCTGTGACATTAAGGACCTGCCAAAAGAG  26895
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Sbjct  26881  ............................................................  26940

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Sbjct  26941  ............................................................  27000

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Sbjct  27001  ............................................................  27060

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Sbjct  27061  ............................................................  27120

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Sbjct  27181  ............................................................  27240
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EXHIBIT D

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Query  28036  CTAGGTGTTGGTACCTTCATGAAGGTCACCAAACTGCTGCATTTAGAGACGTACTTGTTG  28095
Sbjct  28021  ............................................................  28080

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Sbjct  28321  ............................................................  28380

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Sbjct  28381  ............................................................  28440

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EXHIBIT D

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Sbjct  29161  ............................................................  29220

Query  29236  aaaaagaaaaaGACTGATGAAGCTCAGCCTTTGCCGCAGAGACAAAAGAAGCAGCCCACT  29295
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Query  29296  GTGACTCTTCTTCCTGCGGCTGACATGGATGATTTCTCCAGACAACTTCAAAATTCCATG  29355
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Query  29596  CACGCGGAGTACGATCGAGGGTACAGTGAATAATGCTAGGGAGAGCTGCCTATATGGAAG  29655
Sbjct  29581  ............................................................  29640

Query  29656  AGCCCTAATGTGTAAAATTAATTTTAGTAGTGCTATCCCCATGTGATTTTAATAGCTTCT  29715
Sbjct  29641  ............................................................  29700

Query  29716  TAGGAGAATGACaaaaaaaaaaaaaaaaaaaaaaa  29751
Sbjct  29701  ..................................  29736
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